

Siting of Wetland Mitigation in Northeast Minnesota



**Issues, Concepts, and Alternatives from the
Interagency Northeast Mitigation Siting Team**

11-20-13

Today's Agenda

1. Review Meeting Purpose and Format for Input
2. Presentation of Key Concepts
3. Discussion

Break – 3:30 p.m.

4. Stakeholder Input
5. Meeting Wrap-up, Next Steps

The Purpose of Today's Meeting

1. Present the concepts and ideas developed by the interagency team before the report is completed.
2. Answer questions and ensure the concepts are well understood.
3. Obtain input/feedback.
4. Hear other ideas you may have.

Process for Stakeholder Input

You all have “Post-it Notes.”

- Write one thought per note in complete sentences regarding an:
 - Opportunity,
 - Challenge, or
 - Question.
- Number your comment 1-12 (according to the corresponding concept from the agenda).
- Add your name (if willing).
- Hold your thoughts until we get to this part of the meeting.
- ❖ For those participating via web-ex, e-mail your thoughts to david.weirens@state.mn.us

Interagency Northeast Mitigation Siting Team Members

- Les Lemm, BWSR
- Dale Krystosek, BWSR
- Doug Norris, DNR
- Kate Paul/Jennifer Engstrom/Colleen Allen, DNR
- Mark Gernes, PCA
- Tom Estabrooks, PCA
- Tim Smith, USACE
- Greg Larson, USACE
- Kerryann Weaver, USEPA

What we will Cover Today

1. Background
 2. Team Mission, Objectives, and Guiding Principles
 3. Concepts and Options
- We will not cover all the details – today's discussion is more conceptual. Most details will still need to be determined.

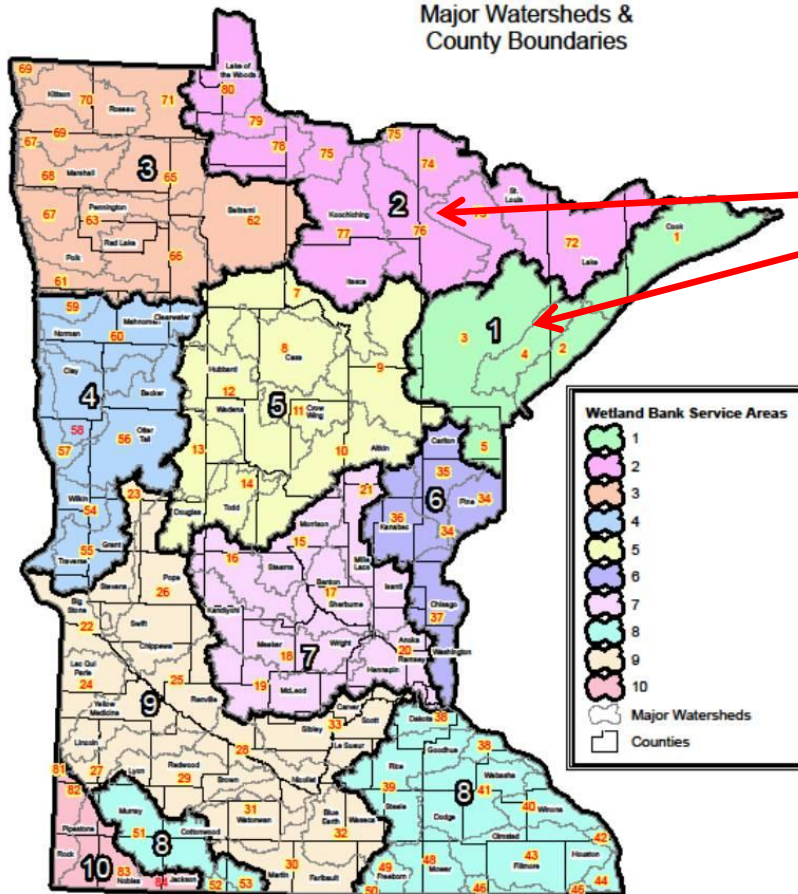
What the Team Did NOT Address

- Existing requirements not related to compensatory mitigation, including the requirement to avoid and minimize impacts.
- Procedures relating to a permit-to-mine (i.e. Executive Order 12-04 Final Report Recommendations, Issue 3, Item VII, a & b).
- Other issues raised in the Governor's Executive Order process not directly related to mitigation of NE MN wetland impacts.

Northeast Minnesota = BSAs 1&2

Wetland Bank Service Areas

With
Major Watersheds &
County Boundaries



Bank Service Areas
1 and 2 are the
Lake Superior and
Rainy River
drainage basins.

Projected Future Impacts

- Over the next 20 years:
- 4,100 acres of wetland impacts from mining. Of this, 1,250 acres of mitigation already in process or approved, leaving 2,850 acres of impacts needing replacement.
- 2,400 acres of impacts for transportation and development projects in NE MN.
- **TOTAL: 5,250 acres.**

Problem Statement

- “Ongoing and projected impacts to wetlands in northeast (NE) Minnesota are creating high demand for compensatory wetland mitigation.”
- “Due to the high prevalence of wetlands and the relative lack of drained wetlands in NE Minnesota, opportunities to efficiently achieve ecologically beneficial mitigation through traditional approaches are limited.”
- “Improved coordination of federal and state wetland regulatory programs would provide for more effective management of these unique circumstances.”

Existing Law/Policy

1. Wetland Regulations (WCA, PWPP, 404, 401, 7050)
 2. NPDES/SDS Permitting Program
 3. Mining Site Reclamation Requirements
- NPDES/SDS permitting and site reclamation requirements in combination with other regulatory requirements, such as wetland mitigation, are necessary to maintain water quality and watershed integrity.

Mission of the Interagency Team

- The mission of this interagency effort is to evaluate and reconcile federal *and* state wetland replacement siting requirements and provide recommendations for
 - 1) efficiently achieving high quality wetland replacement consistent with watershed needs as well as statewide wetland goals,
 - 2) while maintaining the ecological integrity of watersheds in NE Minnesota where impacts are permitted.

General Policy Objectives

Continuing the status-quo is an unacceptable outcome for the mitigation of large-scale wetland impacts in NE MN. In general, policies should be supported that improve:

- the clarity of information and expectations for project proponents;
- communication and coordination between agencies regarding the requirements of regulatory programs;
- the targeting and focus of mitigation to maximize overall aquatic resource benefits, including projects that may or may not be focused solely on wetlands; and
- the effectiveness of implementation and compliance.

Guiding Principles

1. The team will concentrate on compensatory mitigation and will not address other requirements such as avoidance and minimization.
2. Wetland replacement within the watershed is required under federal and state rules whenever practicable alternatives are available that offset the aquatic resource functions lost.
3. Mitigation opportunities in NE MN are limited by the amount of public land, the extent of aquatic resources that remain from the pre-settlement era, and the limited potential for generating mitigation credits.

Guiding Principles (cont'd)

4. When practicable opportunities are not available in the watershed where impacts occur that adequately compensate for the impacts, then mitigation should be pursued in priority areas.
5. Mitigation of impacts to water quality must occur within the watershed, and may be accomplished through various mechanisms not limited to wetland mitigation.
6. Mitigation site selection is fundamental to obtaining restorable, sustainable wetlands that provide functional benefits adequate to offset the aquatic resource functions lost as a result of a permitted activity.

Potential Solutions and Options

Five Main Areas for Further Consideration:

1. Wetland Mitigation Search Criteria
2. Alternative Options for Compensatory Mitigation within NE MN Watersheds
3. Replacement Wetland Siting Criteria
4. “Other” Recommendations for Program Improvement
5. Alternative Mechanisms for Providing Compensatory Mitigation

Wetland Mitigation Search Criteria

- Practicability: What constitutes a reasonable search adequate to comply with Federal and State law?
 - Agencies agree on a single definition of practicability.
 - Cost considerations, existing technology, and logistics.
- “Quality” of Replacement Wetland: What is acceptable?
 - Functional gain and benefits to the watershed are adequate to replace lost wetlands.
- ❖ Additional clarification and/or guidance is recommended for both practicability and quality.

Alternative Options for Compensatory Mitigation within NE MN Watersheds.

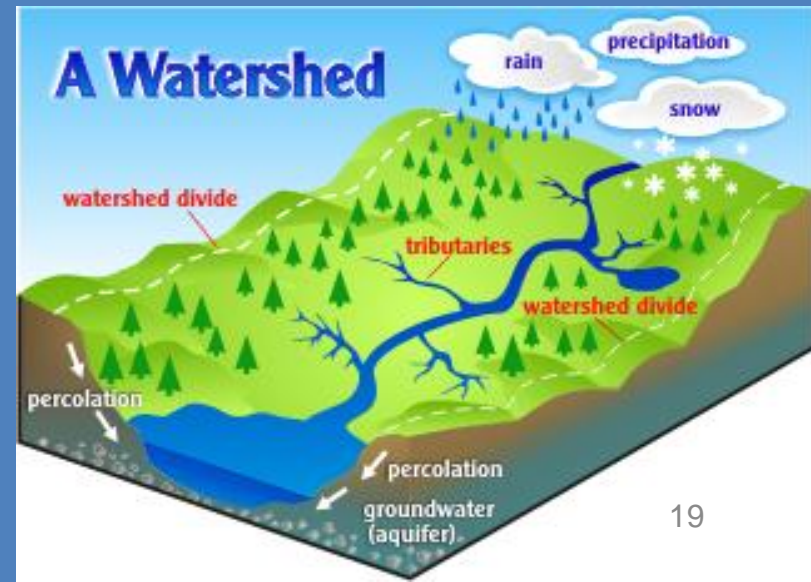
- Restoration preferred method for mitigation.
 - Fewer wetland restoration opportunities in NE.
 - Large projects = high credit needs.
 - Water quality is important in NE watersheds.
- Concept: Other “non-traditional” resource improvement and protection options exist that can provide value and at least partly mitigate for wetland impacts.

Alternative Option: Expanded Use of Preservation

- Activities on adjacent uplands negatively affect wetlands and other aquatic resources, including lake and river fringe wetlands.
- Protecting some of the area's shoreline habitats and sensitive upland areas should be a priority.

Concepts:

1. Clarify and utilize existing preservation options.
2. Allow credit for protection of sensitive upland areas (headwaters, riparian areas, important wildlife corridors, etc).



Protect NE MN Shallow Lakes/Streams/Wetlands

Benefits

Water quality
Habitat for aquatic and riparian species
Hunting and other recreation opportunities

Scaup and ringneck ducks; bay of Northeast Minnesota wild rice lake.

Example provided by DNR

Alternative Option: Restoration/Protection of Riparian Corridors and Streams

- Restoration of riparian corridors can provide multiple benefits to aquatic resources, including:
 - temperature moderation through shading,
 - reduced sediment loading in streams,
 - reduction in peak velocities,
 - in-stream structure from woody debris,
 - wildlife habitat, and
 - floodwater retention.

- Restoration activities can include wetlands and/or uplands.

Alternative Option: Restoration/Protection of Riparian Corridors and Streams

Concept: Allow mitigation credit for:

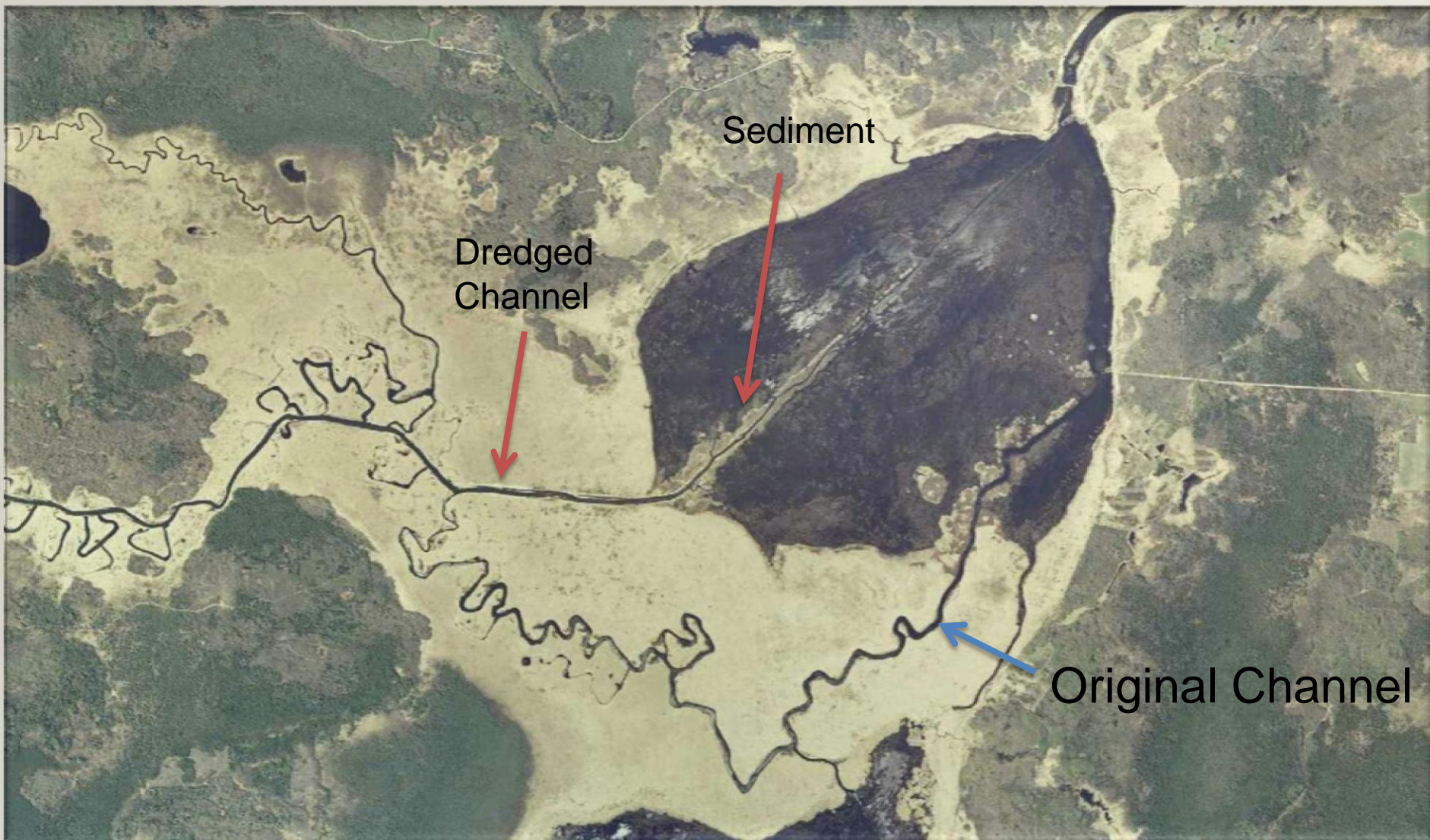
1. preservation of buffers adjacent to trout streams and other sensitive northeast streams.
2. buffer reforestation activities that improve shading, habitat, or water quality of trout streams and other sensitive northeast streams, including impaired streams with an established TMDL.
3. stream restoration projects that include such actions as re-meandering lost channels, stream bank stabilization, and day-lighting buried/piped streams.

Headwaters of Trout Streams: Options for Protection?



Channel Restoration

Mud Lake (Mud-Goose WMA) Leech Lake River



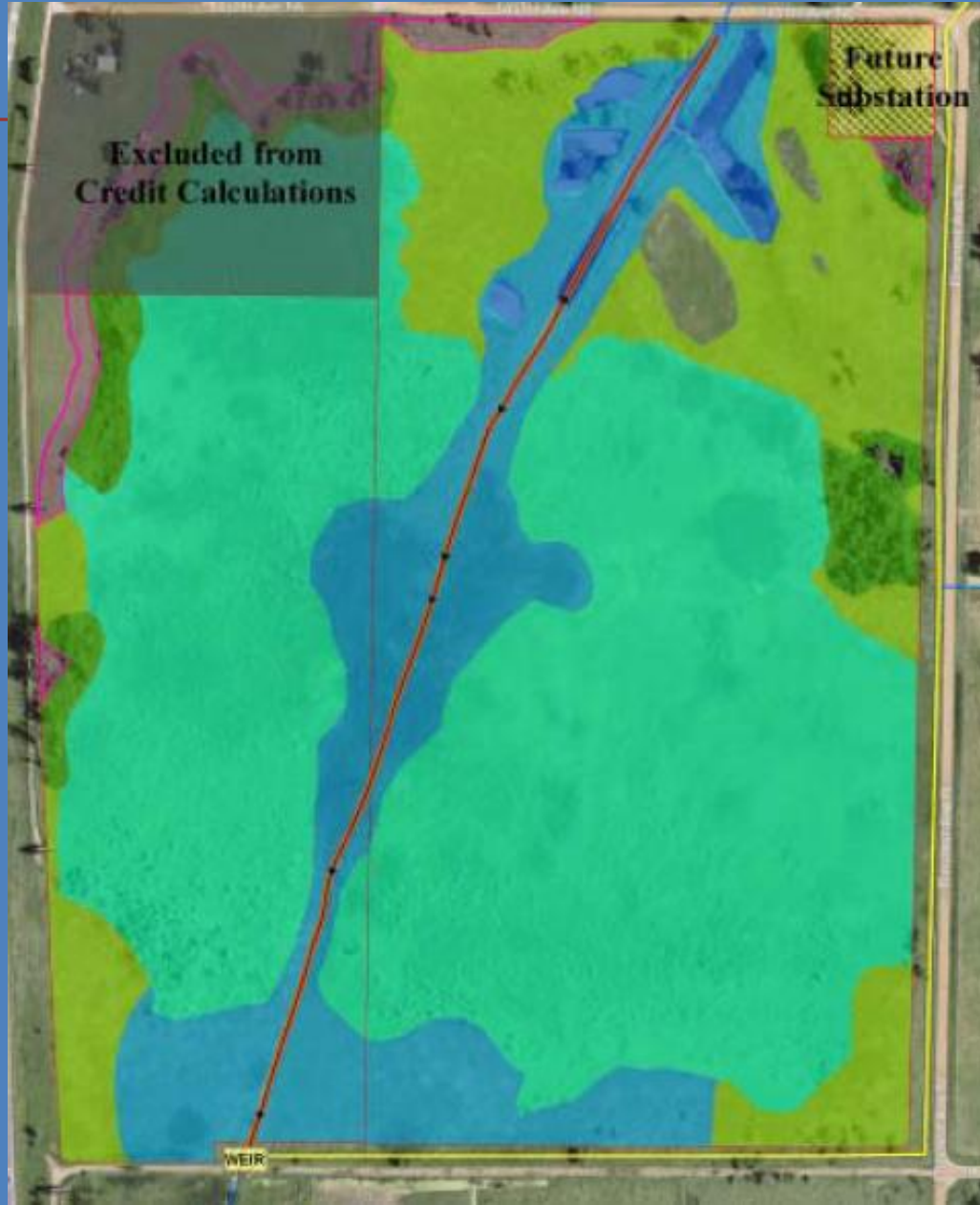
Alternative Option: Stabilization of Natural Hydrology

Concepts:

- Nearby ditching, channelization, or other modifications can indirectly impact the hydrology of existing wetlands.
- Restoration of the natural hydrologic regime can restore functionality and stabilize the hydrology, providing benefits to the watershed.

Team Recommendation: Provide clarification to allow mitigation credit for stabilization of hydrology through ditch “de-coupling” or other means.

Example: Stabilization of Natural Hydrology



Excerpt from Rice Creek
Watershed District
Wetland Banking Plan

Alternative Option: Peatland Hydrology Restoration

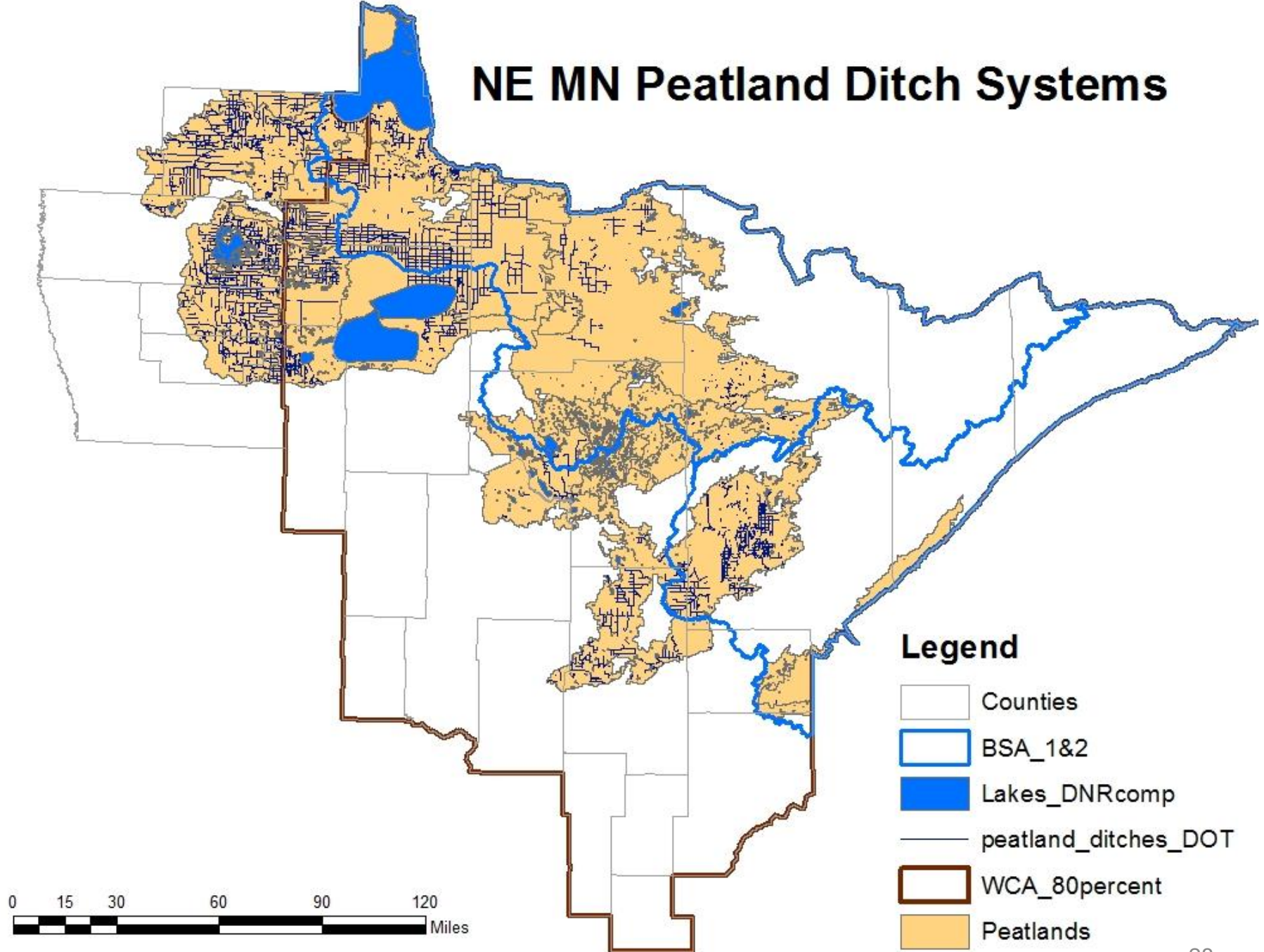
Concepts:

- Significant ditching of NE peatlands through early 1900s. Drainage efforts largely unsuccessful.
- Significant effects on peat quality, water quality, and peatland hydrology in some areas.
- Restoration of peatland hydrology can provide water quality and quantity benefits to the watershed and downstream resources.

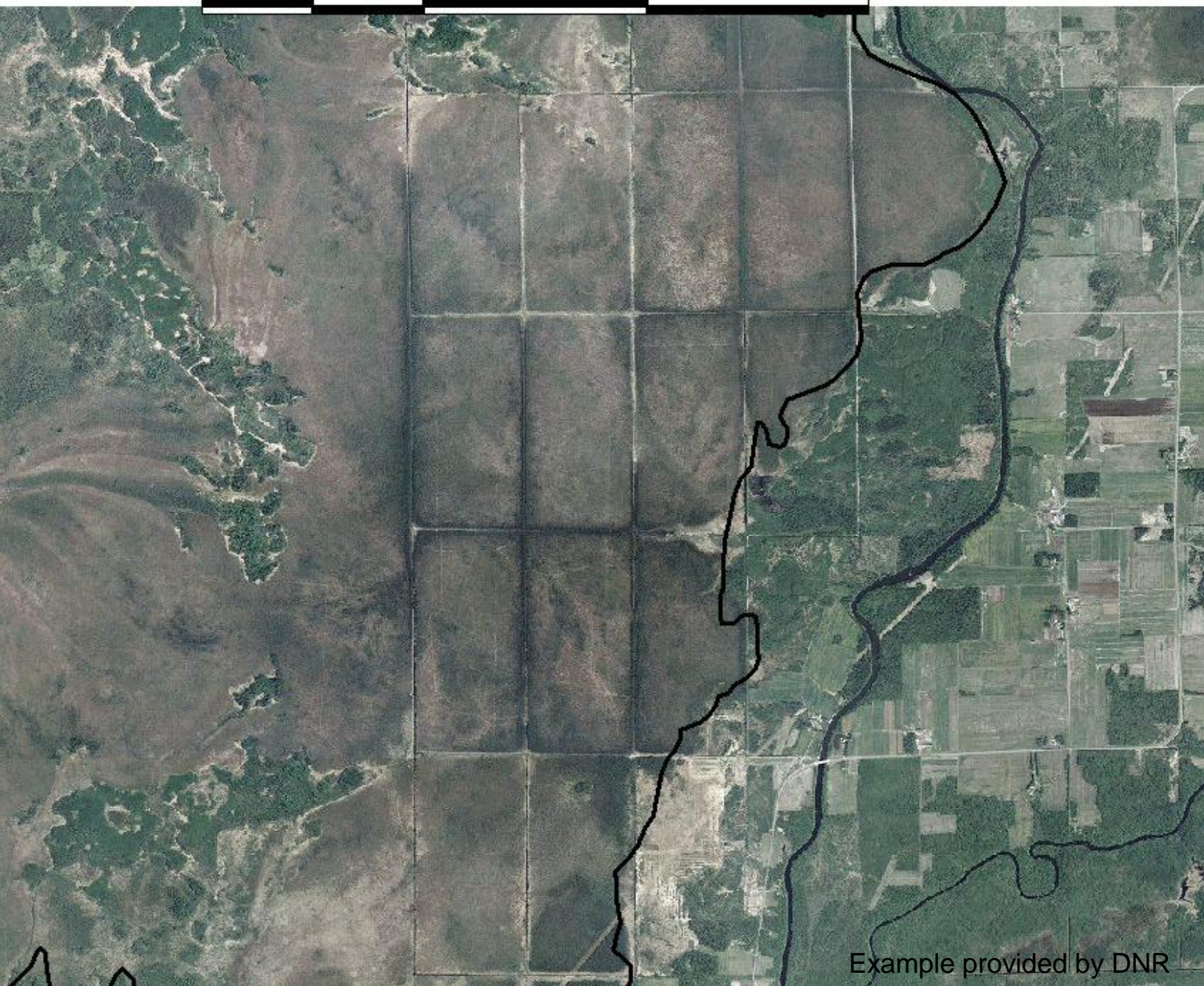
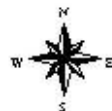
Team Recommendation: Clarification and consistency in allowing mitigation credit for restoring peatland hydrology.

1. Functional evaluation
2. Guidance

NE MN Peatland Ditch Systems



1 Restored Peatland Wetland Mitigation Site



Example provided by DNR

Alternative Option: Approved Watershed Plan Implementation Projects

Concept: Approved watershed plans often identify specific projects that benefit the overall ecological functioning of aquatic resources. Implementation of those projects by applicants could generate credit.

- TMDL implementation plans
- Resource management plans
- Basin plans
- Local water plans
- Habitat conservation or improvement plans

Alternative Option: Approved Watershed Plan Implementation Projects

Team Recommendation:

- Allow mitigation credit for the completion of certain approved watershed plan implementation projects.
- Components of this recommendation include:
 - policy changes,
 - promotion of wetland planning,
 - guidance and crediting procedures,
 - and the identification of specific projects or types of projects that can obtain credit.

Replacement Wetland Siting Criteria

Concepts:

1. Maintain requirement/incentives to replace wetland impacts within the watershed of impact when practicable options are available (do not “give up” on the NE).
2. Protecting water quality is particularly important in the NE.
3. When adequate mitigation is not available within the same major drainage basin, it should be directed to areas of the state that will maximize public benefits.

Siting Criteria

Proposed Siting Criteria:

- 1) On-site or in the same minor watershed as the impact.
- 2) In the same major watershed as the impact.
- 3) In the same bank service area as the impact.
- 4) In an area of the state that has been designated as high priority for wetland restoration.*
- 5) In another bank service area.

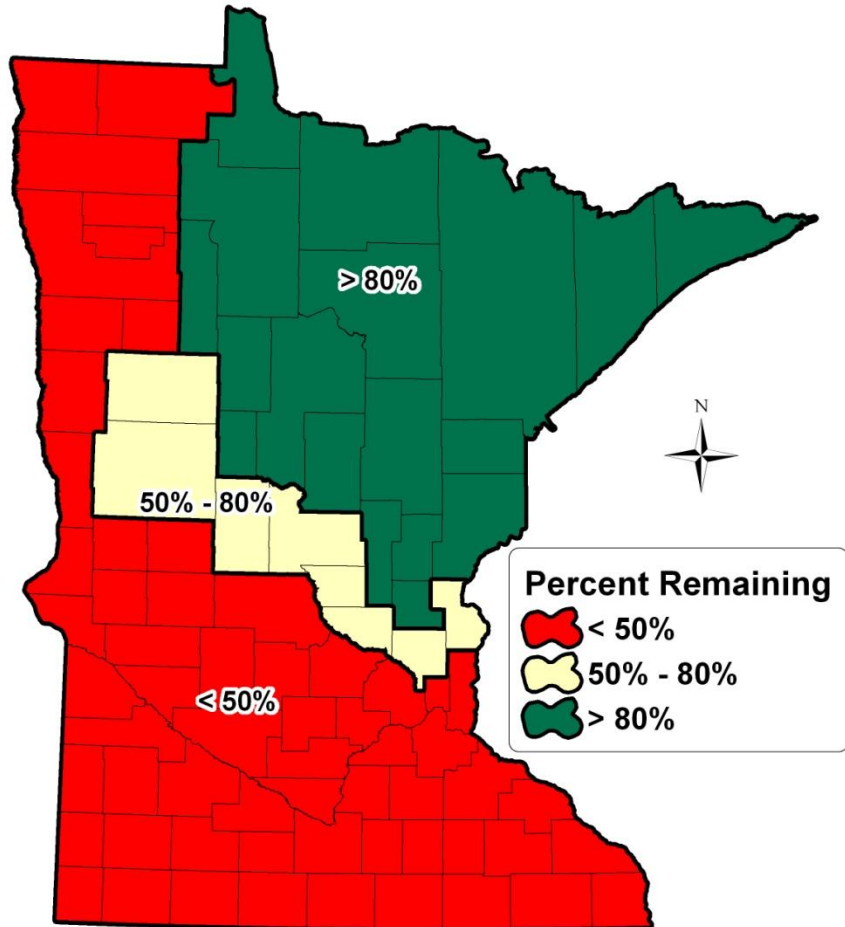
*Under current siting criteria, step 4 allows mitigation statewide.

One Possible Example of how the Siting Criteria could Work

- 1) Replace wetland impacts within the same BSA at 1:1. All actions eligible for credit are available, including alternative actions, except the “Approved Watershed Plan Implementation Project” option. If adequate mitigation isn’t available, proceed to step 2.
- 2) Replace wetland impacts in a priority area at 1:1, and within NE MN, implement:
 - a. one or more approved watershed plan implementation projects focused on maintenance or improvement of water quality;
 - b. any alternative options for mitigation credit equivalent to a 0.5:1 ratio; or
 - c. any combination of a and b.
- 3) Replace wetland impacts in a priority area at 1.5:1.
- 4) Replace wetland impacts in another BSA at a higher ratio.

Prioritization and Targeting of Out-of-Watershed Mitigation

Minnesota Wetland Conservation Act Pre-Settlement Wetland Areas

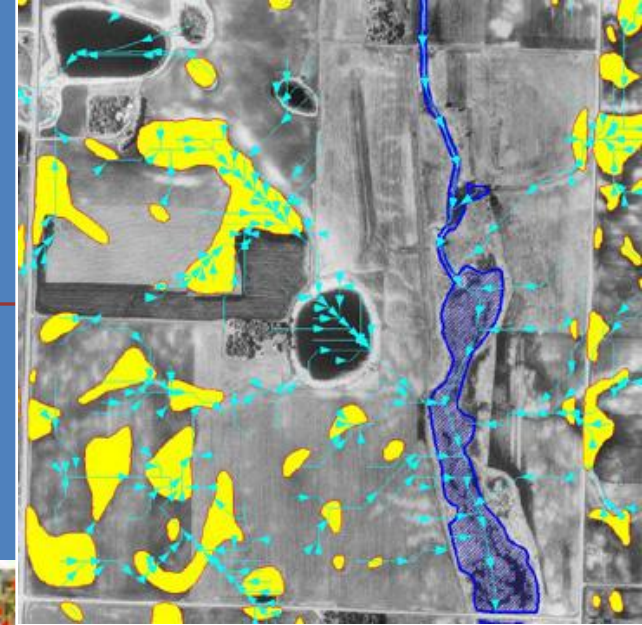


- Existing plans and documents generally identify the prairie pothole region as a high priority area.
- For example, current WCA Rules identify the entire <50% area of the state as high priority for wetland restoration.

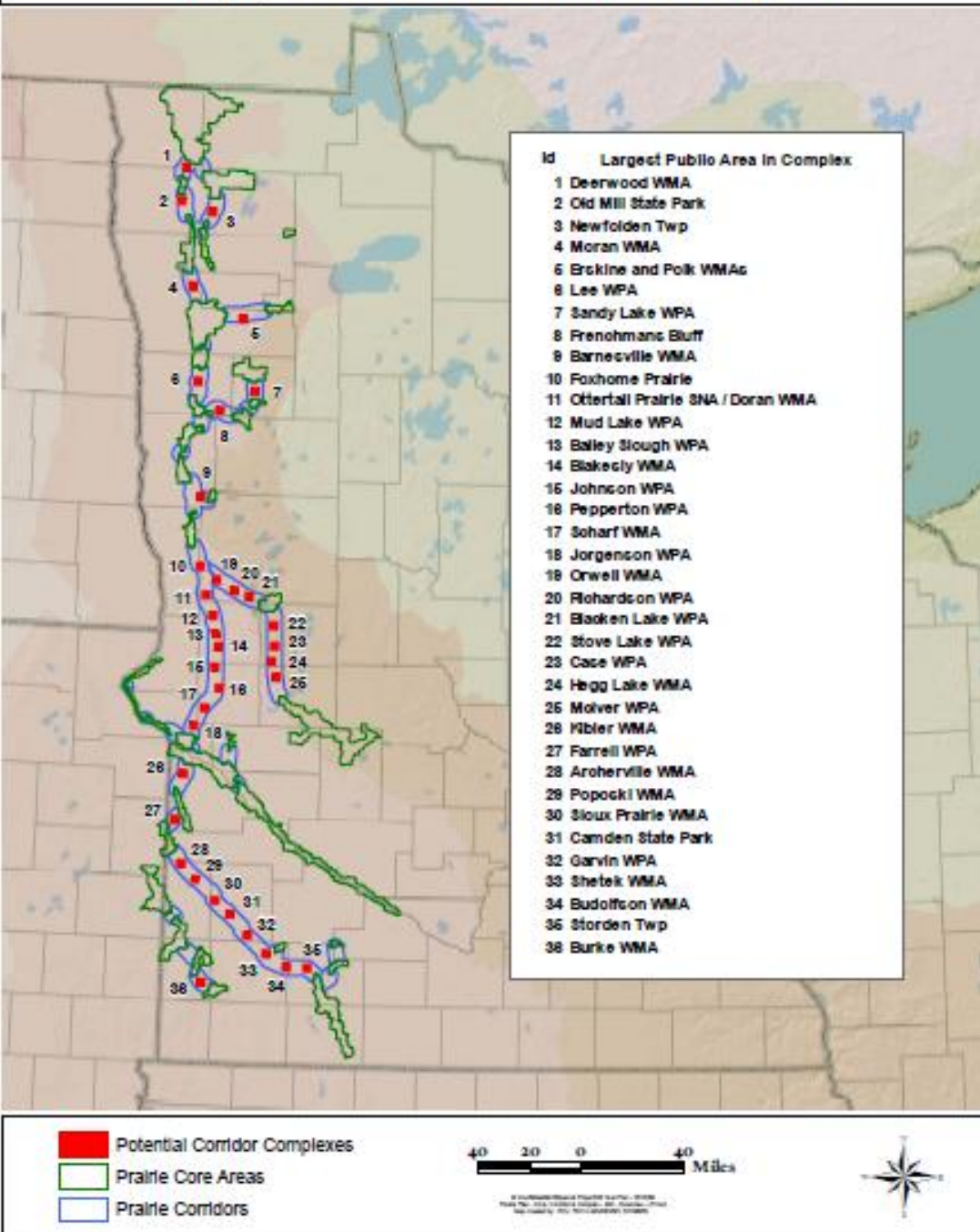
Prairie Pothole Region

More drained wetlands =

- More restoration opportunities.
- More available information.



Map 7. Potential Corridor Complexes

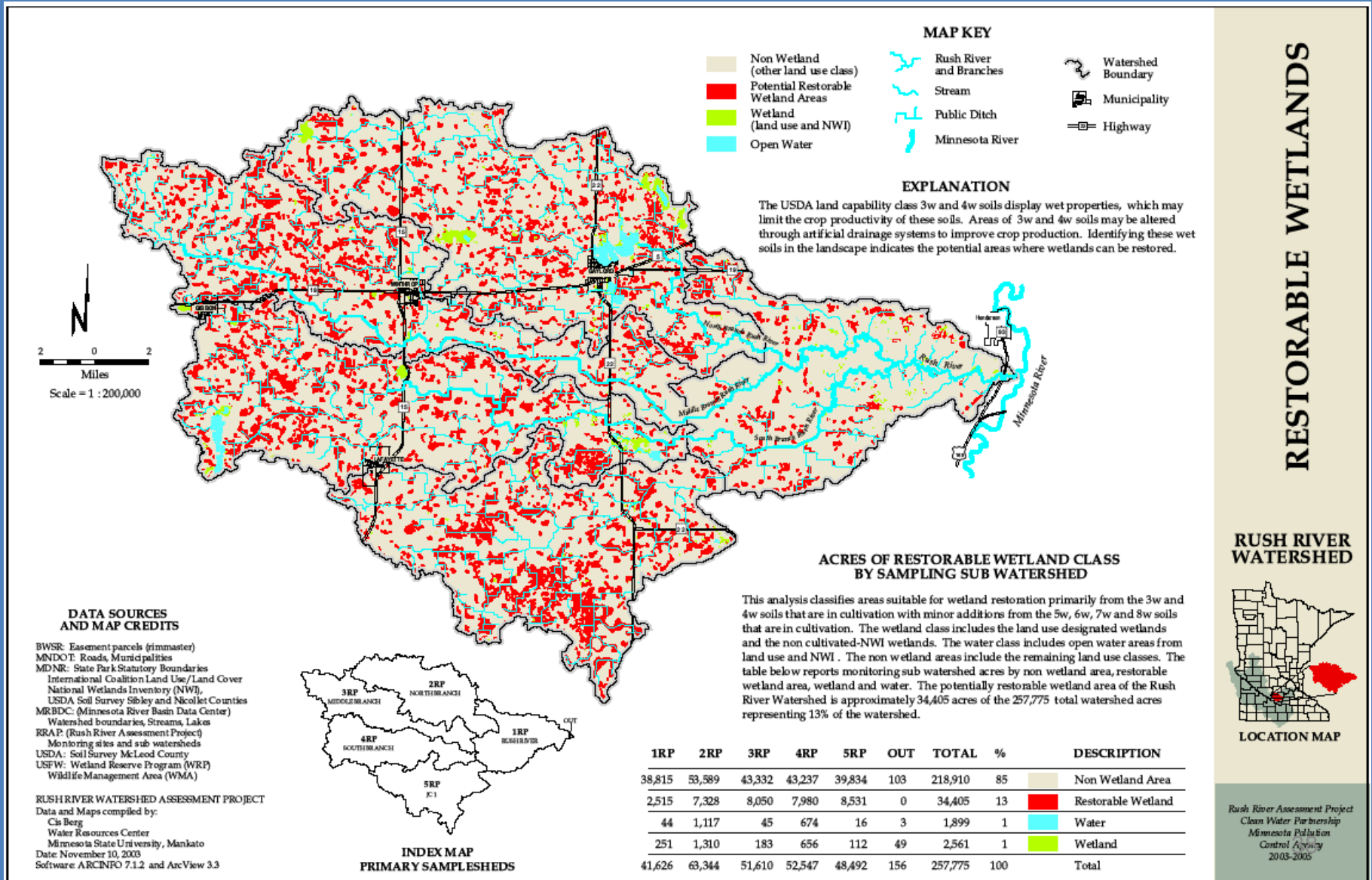


Prioritization and Targeting of Out-of-Watershed Mitigation

- Priority areas can be more specific.
- Example map from MN Prairie Conservation Plan.



Local plans can also identify and/or prioritize wetland restoration opportunities.



Other Ideas for Program Improvement

- **Inventory of Siting Analyses and Potential Mitigation Sites Evaluated.**
 - Database of sites evaluated for use in future searches.
- **“Rapid Response” Interagency Review Team.**
 - Early agency review of potential mitigation sites, resulting in early feedback to project sponsors.
 - Improved consistency and coordination through simultaneous multi-agency review.
- **Promote Private Wetland Banking.**
 - Improve availability of info regarding banking in NE.
 - Utilize agency expertise to proactively inventory and assess potential mitigation sites and promote banking.
 - Promote and utilize local watershed planning efforts.

Alternative Mechanisms for Providing Compensatory Mitigation

- The way we make mitigation decisions now may not be the preferred method in the future.
- An alternative implementation mechanism may be more effective in producing outcomes consistent with mitigation goals.
- The team identified two primary options:

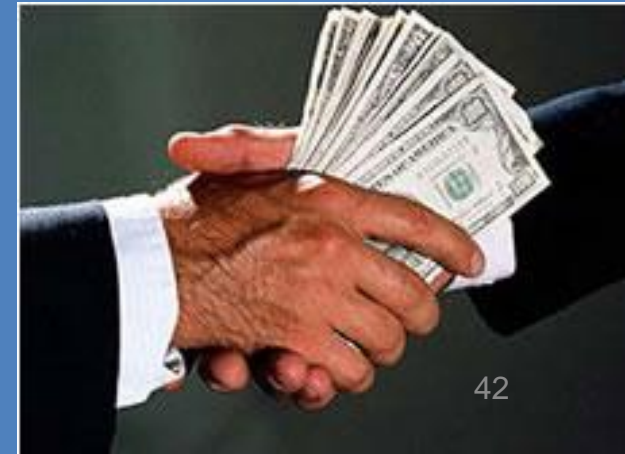
NE Regional Wetland Mitigation Cooperative (Umbrella Bank) Option

- Recommended by NE MN Wetland Mitigation Inventory & Assessment Report (BWSR, January 2010).
- Cooperative/partnership between private entities with private funding.
- In-advance banking credits, primarily in NE.
- Direction and guidance provided by an interagency wetland mitigation committee.



In-Lieu Fee Program Option

- Could have NE or Statewide context.
- Mitigation can occur after credits have been “purchased.”
- Could be non-federal public entity or non-governmental organization.
- Advantages for targeting of mitigation sites and funding.



Questions?



Process for Stakeholder Input

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Next Steps

1. Consider input from stakeholders, agency staff, and others.
2. Agency concurrence on the way forward.
3. Complete the Interagency Team Report.
4. Prioritization and planning for implementation.
5. Continue work and collaboration on details and outstanding issues.*

*Note: Most implementation items will have some type of public input process associated with them (i.e. via Rulemaking).

Thank You!

- Post-meeting comments can be sent to:
david.weirens@state.mn.us